

Claims

What is claimed is:

1. A cable take-up device comprising:

- a. a spool having opposing first and second spool ends, and a spool axis extending therebetween surrounded by an outer spool circumference;
- b. a rotatable spool end wall rotatably affixed to the first spool end;
- c. a cable guide which:
 - (1) rotates with the rotatable spool end wall to orbit the outer spool circumference, and
 - (2) translates along a path parallel to the spool axis during such rotation,

the cable guide having a cable guide aperture defined thereon through which a cable may be extended,

whereby rotating the rotatable spool end wall with respect to the spool orbits the cable guide about the spool while translating the cable guide parallel to the spool axis, thereby winding any cable extending through the cable guide aperture about the outer spool circumference.

2. The cable take-up device of claim 1 wherein the rotatable spool end wall includes a feed aperture defined therein, and wherein at least a portion of the rotatable spool end wall which defines the perimeter of the feed aperture is openable, whereby the openable portion may be opened to place a cable into the feed aperture and closed to fix the cable within the feed aperture.

3. The cable take-up device of claim 1 wherein:

- a. the rotatable spool end wall includes a feed tube protruding therefrom, with the rotatable spool end wall being situated between the spool and the feed tube; and
- b. a feed aperture extends through the feed tube and the rotatable spool end wall.

4. The cable take-up device of claim 3 wherein the feed tube is openable along the length of the feed aperture, whereby the feed tube may be opened to place a cable into the feed aperture and closed to fix the cable within the feed aperture.

5. The cable take-up device of claim 1 further comprising a fixed spool end wall nonrotatably fixed to the second spool end, the fixed spool end wall having a retaining aperture defined therein.

6. The cable take-up device of claim 1 further comprising a fixed spool end wall nonrotatably fixed to the second spool end, the fixed spool end wall having a handle protruding therefrom, with the fixed spool end wall being situated between the spool and the handle.

7. The cable take-up device of claim 1:
- a. further comprising a second spool end wall situated at the second spool end, the second spool end wall including:
- (1) a retaining aperture defined therein, and
- 5 (2) a handle protruding therefrom, with the second spool end wall being situated between the spool and the handle;
- b. and wherein the rotatable spool end wall includes:
- (1) a feed tube protruding therefrom, with the rotatable spool end wall being situated between the spool and the feed tube, and
- 10 (2) a feed aperture defined therein, with the feed aperture extending through the feed tube.
8. The cable take-up device of claim 7 wherein the second spool end wall is nonrotatably affixed to the spool.
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9. The cable take-up device of claim 7 wherein the feed tube is openable along the length of the feed aperture, whereby the feed tube may be opened to place a cable into the feed aperture and closed to fix the cable within the feed aperture.
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10. The cable take-up device of claim 7 further comprising a track extending from the rotatable spool end wall toward the second spool end, whereby the track rotates with the rotatable spool end wall to orbit the outer spool circumference, and wherein the cable guide translates along the track during such rotation.

11. The cable take-up device of claim 10 wherein the track rotates relative to the rotatable spool end wall when the rotatable spool end wall is rotated relative to the spool, and wherein rotation of the track relative to the rotatable spool end wall causes the cable guide to translate along the track.

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12. The cable take-up device of claim 1 further comprising a track extending from the rotatable spool end wall toward the second spool end, whereby the track rotates with the rotatable spool end wall to orbit the outer spool circumference, and wherein the cable guide translates along the track during such rotation.

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13. The cable take-up device of claim 12 wherein the track rotates relative to the rotatable spool end wall when the rotatable spool end wall is rotated relative to the spool.

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14. The cable take-up device of claim 13:

a. further comprising a second spool end wall situated at the second spool end, the second spool end wall including:

(1) a retaining aperture defined therein, and

(2) a handle protruding therefrom, with the second spool end wall being situated between the spool and the handle;

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b. and wherein the rotatable spool end wall includes:

(1) a feed tube protruding therefrom, with the rotatable spool end wall being situated between the spool and the feed tube, and

(2) a feed aperture defined therein, with the feed aperture extending through the feed tube.

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15. The cable take-up device of claim 12 further comprising a rotating drive provided on the rotatable spool end wall, the rotating drive being coupled between the spool and the track to rotate the track relative to the rotatable spool end wall when the rotatable spool end wall is rotated relative to the spool.

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16. The cable take-up device of claim 12 further comprising a second track extending from the rotatable spool end wall toward the second spool end, whereby the second track rotates with the rotatable spool end wall to orbit the outer spool circumference, and wherein the cable guide translates along the second track during such rotation.

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17. A cable take-up device comprising:

- a. a spool having opposing first and second spool ends, and a spool axis extending therebetween surrounded by an outer spool circumference;
- b. a rotatable spool end wall rotatably mounted on the first spool end and including a feed aperture defined thereon;
- c. a track extending from the rotatable spool end wall toward the second spool end;
- d. a cable guide having a cable guide aperture defined therein, the cable guide being translatable on the track;

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wherein:

- (1) a cable may be extended through the cable guide aperture and the feed aperture; and
- (2) rotating the rotatable spool end wall with respect to the spool orbits the cable guide about the spool while translating the cable guide along the track, thereby winding the cable about the outer spool circumference.

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18. The cable take-up device of claim 17 wherein at least a portion of the track rotates relative to the rotatable spool end wall when the rotatable spool end wall is rotated with respect to the spool, and wherein such rotation of at least a portion of the track translates the cable guide along the track.

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19. The cable take-up device of claim 17:

a. wherein at least a portion of the track rotates relative to the rotatable spool end wall when the rotatable spool end wall is rotated with respect to the spool; and

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b. wherein the cable take-up device further comprises a second track extending from the rotatable spool end wall toward the second spool end, and wherein:

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(1) when the rotatable spool end wall is rotated with respect to the spool, the second track travels with the rotatable spool end wall to orbit the outer spool circumference, and

(2) the cable guide translates along the second track during such travel.

20. The cable take-up device of claim 17 further comprising a second spool end wall situated at the second spool end, the second spool end wall including:

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a. a retaining aperture defined therein, and

b. a handle protruding therefrom, with the second spool end wall being situated between the spool and the handle.

21. The cable take-up device of claim 20 wherein the second spool end wall is nonrotatably affixed to the spool.

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22. The cable take-up device of claim 20 wherein at least a portion of the perimeter of the feed aperture is openable, whereby the openable portion may be opened to place a cable into the feed aperture and closed to fix the cable within the feed aperture.

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23. The cable take-up device of claim 22 wherein:

- a. the rotatable spool end wall includes a feed tube protruding therefrom, with the rotatable spool end wall being situated between the spool and the feed tube, and
- b. the feed aperture extends through the rotatable spool end wall and feed tube.

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24. The cable take-up device of claim 17 wherein:

- a. the rotatable spool end wall includes a feed tube protruding therefrom, with the rotatable spool end wall being situated between the spool and the feed tube, and
- b. the feed aperture extends through the rotatable spool end wall and feed tube.

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25. A cable take-up device comprising:

- a. a spool having opposing first and second spool ends, and a spool axis extending therebetween surrounded by an outer spool circumference;
- b. a fixed spool end wall situated on the second spool end and having a retaining aperture defined therein;
- c. a rotatable spool end wall situated on the first spool end, the rotatable spool end wall being rotatable with respect to the fixed spool end wall and including a feed aperture defined thereon;
- d. a track affixed to the rotatable spool end wall and extending toward the fixed spool end wall;
- e. a cable guide having a cable guide aperture defined therein, the cable guide translating on the track when the rotatable spool end wall is rotated with respect to the fixed spool end wall.

26. The cable take-up device of claim 25 wherein:

- a. the rotatable spool end wall is rotatably affixed to the spool, and
- b. the fixed spool end wall is nonrotatably affixed to the spool.

27. The cable take-up device of claim 25 wherein:

- a. the rotatable spool end wall includes a feed tube protruding therefrom, with the feed aperture extending through the feed tube and the rotatable spool end wall; and
- b. the fixed spool end wall includes a handle protruding therefrom, with the fixed spool end wall being situated between the spool and the handle.

28. The cable take-up device of claim 25:

- a. wherein at least a portion of the track rotates relative to the rotatable spool end wall when the rotatable spool end wall is rotated with respect to the fixed spool end wall, thereby translating the cable guide on the track;
- b. further comprising a second track along which the cable guide translates when the rotatable spool end wall is rotated with respect to the fixed spool end wall; and
- c. further comprising a track yoke extending between the tracks, the tracks extending between the track yoke and the rotatable spool end wall.

29. The cable take-up device of claim 28 wherein:

- a. the rotatable spool end wall includes a feed tube protruding therefrom, with the rotatable spool end wall being situated between the spool and the feed tube; and
- b. the feed aperture extends through the feed tube and the rotatable spool end wall.

30. The cable take-up device of claim 29 further comprising a handle protruding from the fixed spool end wall, with the fixed spool end wall being situated between the spool and the handle.